

OM protein - protein search, using sw model

Run on: May 21, 2003, 11:11:18 ; Search time 29 Seconds

(without alignments)
291.185 Million cell updates/sec

Title: US-09-869-677A-2

Perfect score: 287

Sequence: 1 SSTGAKTAKSKDKLVATNS.....PDSTYAMKMKNDKISECL 287

Scoring table:

Gapop 60.0 , Gapext 60.0

Searched: 262574 seqs, 29422922 residues

Word size : 0

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Listing first 45 summaries

Database : Issued Patents-AA:*

- 1: /cgn2_6/ptodata/1/1aa/5A.COMB.pep:*
- 2: /cgn2_6/ptodata/1/1aa/5B.COMB.pep:*
- 3: /cgn2_6/ptodata/1/1aa/6A.COMB.pep:*
- 4: /cgn2_6/ptodata/1/1aa/6B.COMB.pep:*
- 5: /cgn2_6/ptodata/1/1aa/6CTOS.COMB.pep:*
- 6: /cgn2_6/ptodata/1/1aa/Backfile1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	28	9.8	310	1	US-07-791-377-2
2	28	9.8	310	4	US-08-356-106-2
3	27	9.4	289	4	US-08-961-083-20
4	27	9.4	309	2	US-08-715-131-2
5	27	9.4	309	4	US-09-221-753-2
6	20	7.0	293	4	US-09-071-035-496
7	20	7.0	316	4	US-09-071-035-494
8	11	3.8	289	4	US-09-071-035-28
9	11	3.8	308	4	US-09-071-035-26
10	8	2.8	309	1	US-08-729-202-1
11	8	2.8	309	1	US-08-896-371-1
12	8	2.8	316	4	US-09-134-001C-5547
13	7	2.4	172	6	5242821-17
14	7	2.4	207	4	US-09-199-637A-211
15	7	2.4	254	1	US-07-667-276A-6
16	7	2.4	724	4	US-09-562-737-24
17	6	2.1	13	2	US-08-760-075A-3
18	6	2.1	13	4	US-09-338-546-3
19	6	2.1	13	4	US-09-659-084-3
20	6	2.1	17	4	US-08-602-999A-445
21	6	2.1	17	4	US-09-500-124-445
22	6	2.1	30	4	US-09-376-113-3
23	6	2.1	56	6	5217896-7
24	6	2.1	65	6	US-09-227-357-612
25	6	2.1	75	6	520958-9
26	6	2.1	81	4	US-09-376-113-2
27	6	2.1	85	4	US-08-858-207A-318

28	6	2.1	111	1	US-07-754-918A-11	Sequence 11, Appl
29	6	2.1	117	4	US-09-046-479-2	Sequence 2, Appl1
30	6	2.1	117	4	US-08-822-897C-2	Sequence 2, Appl1
31	6	2.1	117	4	US-09-608-810A-4	Sequence 4, Appl1
32	6	2.1	124	4	US-09-134-001C-5344	Sequence 5344, Ap
33	6	2.1	127	3	US-08-705-771-12	Sequence 12, Appl
34	6	2.1	141	2	US-08-411-726-5	Sequence 5, Appl1
35	6	2.1	141	6	5217896-3	Patent No. 5217896
36	6	2.1	155	4	US-09-615-192A-298	Sequence 298, App
37	6	2.1	161	4	US-08-858-207A-284	Sequence 284, App
38	6	2.1	168	4	US-09-376-113-5	Sequence 5, Appl1
39	6	2.1	172	2	US-08-923-738-2	Sequence 2, Appl1
40	6	2.1	172	2	US-08-923-738-2	Sequence 4, Appl1
41	6	2.1	172	4	US-08-936-165A-385	Sequence 385, App
42	6	2.1	173	1	US-08-193-977-10	Sequence 10, Appl
43	6	2.1	175	4	US-09-376-113-7	Sequence 7, Appl1
44	6	2.1	177	4	US-09-643-597-165	Sequence 165, App
45	6	2.1	177	4	US-09-643-597-166	Sequence 166, App

ALIGNMENTS

RESULT 1
US-07-791-377-2
Sequence 2, Application US/07791377
Patent No. 5422427
GENERAL INFORMATION:
APPLICANT: Russell, Harold
APPLICANT: Tharpe, Jean A.
APPLICANT: Sampson, Jacquelyn
APPLICANT: O'Connor, Steven P.
TITLE OF INVENTION: PNEUMOCOCCAL FIBRILLAR PROTEIN A
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
STREET: 1615 L. Street, N.W.
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20036-5601
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/791,377
FILING DATE: 19911121
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Scott, Watson T.
REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: WTS/5683/91969
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
TELEFAX: (202) 822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 310 amino acids
TYPE: AMINO ACID
TOPOLOGY: linear
MOLECULE TYPE: protein
US-07-791-377-2
Query Match 9.8%; Score 28; DB 1; Length 310;
Best Local Similarity 100.0%; Pred. No. 3.2e-19;
Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 181 IYVSECCFYSKAYGVSATWEINTE 208
202 IYVSECCFYSKAYGVSATWEINTE 229

RESULT 5

AAV30350 standard; Protein: 309 AA.

AAV30350;

09-NOV-1989 (first entry)

37 kDa pneumococcal surface adhesion A protein (PsaA).

Pneumococcal surface adhesion A protein; PsaA: monoclonal antibody; vaccine; Streptococcus pneumoniae infection.

Streptococcus pneumoniae.

MO945121-A1.

10-SEP-1999.

26-FEB-1999; 99MO-US04-26.

02-MAR-1998; 98US-0076565.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Ades EM, Carlone GM, Sampson JS, Tharpe JA, Westerink MAJ; Zeller JL;

WPI: 1999-540849/45.

N-PSDB; AA210411.

New peptides corresponding to Streptococcus pneumoniae PsaA, used for treating or preventing Streptococcus pneumoniae infection in a subject

Example 8; Page 53-54; 58pp; English.

The present sequence represents a pneumococcal surface adhesion A protein (PsaA). The specification describes monoclonal antibodies which bind epitopes of the PsaA protein (see AAV30351-54). These peptides can be used in vaccines to prevent Streptococcus pneumoniae infections. The antibodies of the invention can also be used to detect S. pneumoniae in a sample or individual.

Sequence 309 AA;

Query Match 80.0%; Score 1179.5; DB 20; Length 309;

Best Local Similarity 78.4%; Pred. No. 2.9e-90;

Matches 225; Conservative 30; Mismatches 31; Indels 1; Gaps 1;

2 STGAK-TAKSDKLKVAATNSIADMTKAIAGDKIDLSHIVPIGDPHEPEPLPDEAKTS 60
 21 ASGKDDTSGQLKVAATNSIADITKNIAGDKIDLSHIVPIGDPHEPEPLPDEAKTS 80
 61 NADVIFYNGINLEDGGMFTLVNAOKTKKDYFAVSDGIDVYLLSGASEKGEDPHA 120
 81 EADLIFYNGINLEDGGMFTLVNAOKTKKDYFAVSDGIDVYLLSGASEKGEDPHA 140
 121 WNLNENGIIFAKNIKOLIAADPKKREYKYLKAYVAKLEKDKESKDPALAEKKL 180
 141 WNLNENGIIFAKNIKOLIAADPKKREYKYLKAYVAKLEKDKESKDPALAEKKL 200
 181 IYTSSECFKFSKAVGSAYIWEINTEEGTPOISSLIKLYIKPSALFVSSVDR 240
 201 IYTSSECFKFSKAVGSAYIWEINTEEGTPOISSLIKLYIKPSALFVSSVDR 260
 241 PNEYVSKDGIPIYSEITFDSIAKKGKGDYVAMKNNLDKISGL 287
 261 PKRTVSQDINIPYVQIFTDISIAEGKGDYVAMKNNLDKISGL 307

AAW82496 standard; Protein: 309 AA.

AAW82496;

04-MAR-1999 (first entry)

S. pneumoniae 37-kDa surface adhesion A protein.

Surface adhesion A protein; vaccine; detection; serotype; antibody; diagnostic; immunoassay; treatment; infection; anti-idiotypic.

Streptococcus pneumoniae.

US5854416-A.

29-DEC-1998.

17-SEP-1996; 96US-0715131.

17-SEP-1996; 96US-0715131.

04-APR-1994; 94US-0222179.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Ades EM, Carlone GM, Russell H, Sampson JS, Tharpe JA;

WPI: 1999-095007/08.

N-PSDB; AA73914.

Nucleic acid encoding the 37 kDa, surface adhesion A of Streptococcus pneumoniae - useful diagnostically and for production of recombinant polypeptides

Claim 1; Column 33-34; 20pp; English.

This sequence represents a Streptococcus pneumoniae 37-kDa surface adhesion A protein. This encoding nucleic acid can be used in methods to express recombinant protein, as a source of primers for amplification (to identify and isolate related sequences, e.g. allelic variants) or probes for nucleic acid hybridisation tests for detecting S. pneumoniae, and in DNA vaccines. This protein and its fragments can be used to raise antibodies. In vaccines and for detecting S. pneumoniae by reaction with specific antibodies. Antibodies are useful in diagnostic immunoassays, to treat infections and to raise anti-idiotypic antibodies for use in vaccines. This protein is very highly conserved between the different serotypes of S. pneumoniae so is an excellent candidate for vaccine development.

Sequence 309 AA;

Query Match 80.0%; Score 1179.5; DB 20; Length 309;

Best Local Similarity 78.4%; Pred. No. 2.9e-90;

Matches 225; Conservative 30; Mismatches 31; Indels 1; Gaps 1;

2 STGAK-TAKSDKLKVAATNSIADMTKAIAGDKIDLSHIVPIGDPHEPEPLPDEAKTS 60
 21 ASGKDDTSGQLKVAATNSIADITKNIAGDKIDLSHIVPIGDPHEPEPLPDEAKTS 80
 61 NADVIFYNGINLEDGGMFTLVNAOKTKKDYFAVSDGIDVYLLSGASEKGEDPHA 120
 81 EADLIFYNGINLEDGGMFTLVNAOKTKKDYFAVSDGIDVYLLSGASEKGEDPHA 140
 121 WNLNENGIIFAKNIKOLIAADPKKREYKYLKAYVAKLEKDKESKDPALAEKKL 180
 141 WNLNENGIIFAKNIKOLIAADPKKREYKYLKAYVAKLEKDKESKDPALAEKKL 200
 181 IYTSSECFKFSKAVGSAYIWEINTEEGTPOISSLIKLYIKPSALFVSSVDR 240
 201 IYTSSECFKFSKAVGSAYIWEINTEEGTPOISSLIKLYIKPSALFVSSVDR 260
 241 PNEYVSKDGIPIYSEITFDSIAKKGKGDYVAMKNNLDKISGL 287
 261 PKRTVSQDINIPYVQIFTDISIAEGKGDYVAMKNNLDKISGL 307

fimbrial adhesin fima precursor - Streptococcus parasanguinis

C:Species: Streptococcus parasanguinis

C>Date: 31-Jan-1992 #sequence_revision 31-Jan-1992 #text_change 17-Nov-2000

C/Accession: A37186; S61912

R:Enno, J.C.; Leblanc, D.J.; Fives-Taylor, P.

Infect. Immun. 57, 3528-3533, 1989

A>Title: Nucleotide sequence analysis of a type 1 fimbrial gene of Streptococcus sanguis

A/Reference number: A37186; PMID:90035427; PMID:2572555

A/Accession: A37186

A>Status: preliminary

A/Molecule type: DNA

A/Residues: 1-309 <FEN1>

A/Cross-references: GB:M26130; NID:9567768; PIDN:AAA53077.1; PID:G153834

A/Experimental source: strain FW213

Note: the source is designated as Streptococcus sanguis

Mol. Microbiol. 15, 849-863, 1993

A>Title: The fima locus of Streptococcus parasanguis encodes an ATP-binding membrane

A/Reference number: S61910; PMID:95319327; PMID:7596287

A/Accession: S61912

A>Status: nucleic acid sequence not shown; translation not shown

A/Molecule type: DNA

A/Residues: 1-309 <FEN2>

A/Cross-references: EMBL:M26130; NID:9567768; PIDN:AAA53077.1; PID:G153834

A/Experimental source: strain FW213

A/Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1994

A/Note: this publication is not cited in GenBank entry STRSRA, release 117.0

C:Genetics:

A:Gene: fima

C:Superfamily: adhesin B

C/Keywords: blocked amino end; lipoprotein; membrane protein

F:1-20/Domain: signal sequence status predicted <SIG>

F:21-309/Product: fimbrial adhesin fima #status predicted <MAT>

F:21/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted

F:21/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 11.5%; Score 33; DB 2; Length 309;

Best Local Similarity 100.0%; Pred. No. 1.2e-15;

Matches 33; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

181 IYTSGCCFKYKAYGVPASVATWEINTEECTP 213

201 IYTSGCCFKYKAYGVPASVATWEINTEECTP 233

RESULT 3

195191

Hypothetical protein SP1650 [imported] - Streptococcus pneumoniae (strain TIGR4)

C:Species: Streptococcus pneumoniae

C/Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 24-Aug-2001

C/Accession: H95191

A:Title: Umayam, L.A.; White, E.; Salberg, S.L.; Lewis, M.R.; Redune, D.; Holtzapfel, S.

A:Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison, T.; Hickey, E.K.; Holt, I.E.

A:Reference number: A95000; PMID:21357209; PMID:11463916

A/Status: preliminary

A/Molecule type: DNA

A/Residues: 1-309 <KUR>

A/Cross-references: GB:AE005672; PIDN:AAK5729.1; PID:G14973140; GSPDB:GN00164; TIGR:SP4

A/Experimental source: strain TIGR4

C:Genetics:

A:Gene: SP1650

A:Superfamily: adhesin B

C:Keywords: Score 27; DB 2; Length 309;

Best Local Similarity 100.0%; Pred. No. 1.7e-19;

Matches 0; Mismatches 0; Indels 0; Gaps 0;

9.4%; Score 27; DB 2; Length 309;

Best Local Similarity 100.0%; Pred. No. 1.7e-19;

Matches 0; Mismatches 0; Indels 0; Gaps 0;

100.0%; Pred. No. 1.7e-19;

Matches 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 IAGDKIDLSIYPIGDPHEPEPLPED 55

DB 49 IAGDKIDLSIYPIGDPHEPEPLPED 75

RESULT 4

E98058

Hypothetical protein psaa [imported] - Streptococcus pneumoniae (strain R6)

C:Species: Streptococcus pneumoniae

C/Date: 22-Oct-2001 #sequence_revision 22-Oct-2001 #text_change 02-Nov-2001

C/Accession: E98058

R:Hoskins, J.A.; Alborn Jr., W.; Arnold, J.; Blaszcak, L.; Burett, S.; Dehoff, B.S.

E, R.; Leblanc, D.J.; Lee, L.N.; Lefkowitz, E.J.; Lu, J.; Matsushima, P.; McWhren, S.

Y, P.; Sun, P.M.; Winkler, M.E.

J. Bacteriol. 183, 5709-5717, 2001

A:Authors: Yang, Y.; Young, B.; Zhao, G.; Zook, C.; Baltz, R.H.; Jaskunas, S.

A/Title: Genome of the Bacterium Streptococcus pneumoniae Strain R6.

A/Reference number: A97872; PMID:21429245; PMID:11544234

A/Accession: E98058

A>Status: preliminary

A/Molecule type: DNA

A/Residues: 1-309 <KUR>

A/Cross-references: GB:AE007311; PIDN:AAU00298.1; PID:G15459154; GSPDB:GN00174

A/Experimental source: strain R6

C:Genetics:

A:Gene: psaa

C:Superfamily: adhesin B

Query Match 9.4%; Score 27; DB 2; Length 309;

Best Local Similarity 100.0%; Pred. No. 1.7e-19;

Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 IAGDKIDLSIYPIGDPHEPEPLPED 55

DB 49 IAGDKIDLSIYPIGDPHEPEPLPED 75

RESULT 5

AA3583

Adhesin B precursor - Streptococcus sanguis

C:Species: Streptococcus sanguis

C/Date: 12-Jan-1993 #sequence_revision 12-Jan-1993 #text_change 24-Sep-1999

C/Accession: A43583

R:Ganeskumar, N.; Hannam, P.M.; Kolenbrander, P.E.; McBride, B.C.

Infect. Immun. 59, 1093-1099, 1991

A:Title: Nucleotide sequence of a gene coding for a saliva-binding protein (Ssab) from

A/Reference number: A43583; PMID:91147187; PMID:1671775

A/Accession: A43583

A>Status: preliminary

A/Molecule type: DNA

A/Residues: 1-309 <GAN>

A/Cross-references: GB:M63481; NID:G153825; PIDN:AAQ98426.1; PID:G153826

C:Superfamily: adhesin B

Query Match 7.0%; Score 20; DB 2; Length 309;

Best Local Similarity 100.0%; Pred. No. 2.7e-12;

Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 111 SEKKEDPHAMTLENGITY 130

DB 131 SEKKEDPHAMTLENGITY 150

RESULT 6

T11551

Adhesin - Streptococcus gordonii

C:Species: Streptococcus gordonii

C/Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 26-Aug-1999

C/Accession: T11551

R:Kolenbrander, P.E.; Andersen, R.N.; Ganeskumar, N.

Infect. Immun. 62, 4469-4480, 1994

A:Title: Nucleotide sequence of the Streptococcus gordonii PK488 coaggregation adhesin

A/Reference number: 217283; PMID:95012678; PMID:7000000